UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,218	09/30/2003	Hanna Yehuda	EMC03-20(02068)	9873

58404   7590   03/20/2008

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ART UNIT	PAPER NUMBER
2174	

MAIL DATE	DELIVERY MODE
03/20/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/675,218	YEHUDA ET AL.
	Examiner	Art Unit	
	Peng Ke	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 November 2007</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-22 and 31-50</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-22 and 31-50</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
      Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
      Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 11/29/07 has been entered.

Claims 1-22 and 31-50 are pending in this application. Claims 1, 17, 21, 37, 41 and 42

are independent claims.

Claim Rejections - 35 USC § 112

Claim 50 recites the limitation "claim 50" in page 17 of the response. There is

insufficient antecedent basis for this limitation in the claim.

Examiner assumes claim 50 is dependent on claim 49.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 1-17, 21-22, 31-37, 41-42 and 44 are rejected under 35 U:S.C. 103(a) as being

unpatentable over Grace et al. ("Grace" US Patent Application Publication No. 2004/0075680) in

view of Richardson ("Richardson" US Patent No. 6,271,845).

Regarding independent claim 1, Grace discloses (FIGS. 4-5 of Grace) a method to

support displaying management information in a graphical user interface (i.e. "graphical user

interfaces for managing electronic networks", "managing large numbers of parameters associated

with devices in such networks" [0010] of Grace), the method comprising: displaying a

management information view (i.e. "generally provide a user with the ability to selectively

display certain information" [0043] of Grace) that includes management information associated

with at least one managed entity in a network (i.e. "may refer ... to any devices or software

associated' with a computer network" [0043] of Grace, "other network aspects could also be

provided" [0044] of Grace), displaying a menu (i.e. "user selectable list" 402 and 502 in FIGS. 4

and 5, see also [0043]-[0044] of Grace) associated with the management information view (i.e.

"graphical user interface" 400 and 500 in FIGS. 4 and 5, see also [0043]-[0044] of Grace), the

menu including selectable options (i.e. "display items" selected from "available items" in FIGS.

4 and 5 of Grace) that correspond to respective functions selectively applied (i.e. "selectively

display certain information ... status variables or configurable settings of such devices or

software" [0043] of Grace) to the management information associated with the at least one

managed entity (i.e. "may refer ... to any devices or software associated with a computer

network" [0043] of Grace, "other network aspects could also be provided" [0044] of Grace),

identifying a selected option chosen from the menu (i.e. "display items" selected from "available

items" in FIGS. 4 and 5 of Grace), producing a view by applying the respective function

associated with the selected option to the management information associated with the at least

one managed •entity, the produced view including a presentation of the management information

based on the applied respective function, and displaying the view on the graphical user interface

(i.e.• "selectively display certain information ... status variables or configurable settings of such

devices or software" [0043] of Grace, demonstrated in display of information in FIGS. 6-17).

Grace does not teach a drill down view, drill down functions, associating selected drill

down options with entity management information, or displaying the drill down view on the

graphical user interface;

Receiving selection of multiple entries in a hierarchy, the selection including multiple

managed entities in a network;

Continuing the display the drill down menu even after producing the drill down view for

selection of another drill down option from the drill down menu and further drilling down with

respect to the produced drill down view.

Richardson teaches a drill down view, drill down function, associating selected drill

down options with entity management information, or displaying the drill down view on the

graphical user interface (i.e. col. 5 lines 13-19 of Richardson : "Therefore, according to the

present invention, user-configurable group views allow an administrator of the network, upon

noticing that an icon is indicative of a critical event having occurred, as reflected in the color,

shape, or other such indicator of the icon, to "drill down" via a user interface to the network

device or service that is the subject of the critical event").

Receiving selection of multiple entries in a hierarchy, the selection including multiple

managed entities in a network; (see figure 4, items 82)

Continuing the display the drill down menu even after producing the drill down view for

selection of another drill down option from the drill down menu and further drilling down with

respect to the produced drill down view. (see figure 5, item 102)

It would have been obvious to an artisan at the time of the invention to combine the drill

down of Richardson with the management information GUI of Grace "to quickly display to the

administrator of a managed network health problems associated with devices and services on the

network and to provide the administrator with the capability to quickly respond to and correct

pending network problems" (col. 4 lines 62-66 of Richardson)

Regarding dependent claim 2, see the analysis of claim 1 above. Grace, in combination

with Richardson teaches a method as in claim 1, wherein the respective drill down function

associated with the selected drill down option identifies a particular category in which to drill

down to a lower level with respect to the management information associated with the at least

one managed entity (i.e. col. 6 lines 4-7 of Richardson : " If the user of the system is already

viewing the network objects of a particular group view or the health characteristics of a

particular network object, for instance, the drill-down would commence at that level").

Regarding dependent claim 3, see the analysis of claim 2 above. Grace, in combination

with Richardson teaches a method as in claim 2, wherein displaying a drill down menu includes:

displaying the drill down menu (i.e. "user selectable list" 402 and 502 in FIGS. 4 and 5, see also

[0043] of Grace-[0044] of Grace) to include drill down options associated with managed entities

in a storage area network (i.e. "may refer ... to any devices or software associated with a

computer network" [0043] of Grace, "other network aspects could also be provided" [0044] of

Grace; col. 8 lines 1-9 of Richardson • "The user-configurable group views described above

allow an administrator of the network, upon noticing that an icon of a user interface of the NNM

console is indicative of a critical event having occurred, as reflected in the color, shape, or other

such indicator of the icon, to "drill down" to the network device or service (object) that is the

subject of the critical event and to then view an event or trap message associated with the critical

event that is stored as a field of the network device or service effected by the critical event"), the

drill down menu including at least one of the following drill down options: database, database

file, file system, volume group, host device, HBA (Host Bus Adapter), storage device, pool,

port/storage group, unallocated devices (i.e. hosts 124, 126 and 152, "It is understood that this isa

very simplified view of a SAN 100 with representative storage devices and hosts coupled to the

fabric 102• It is understood that quite often significantly more devices and switches are used to

develop the full SAN 100" [0034] of Grace).

Regarding claim 4, see the analysis of claim 1 above• Grace, in combination with

Richardson teaches a method as in claim 1, wherein displaying a management information view

(i.e. "generally provide a user with the ability to selectively display certain information" [0043]

of Grace) includes receiving a selection of at least one managed entity icon (i.e. "expandable

symbols that can be navigated to explore the structure of a network" [0012] of Grace)

representing a corresponding at least one managed entity in the network (i.e. "may refer ... to any

devices or software associated with a computer network" [0043] of Grace, "other network

aspects could also be provided" [0044] of Grace), receiving a selection of a type of management

information view in which to display management information associated with managed entities

represented by the selected at least one managed entity icon (i.e. "display items" selected from

"available items" in FIGS. 4 and 5of Grace), and based on the selection of a type of management

information view, applying a display function to the management information associated with

the at least one managed entity in the network to graphically display the management

information associated with the selected at least one managed entity icon (i.e. "selectively

display certain information ... status variables or configurable settings of such devices or

software" [0043] of Grace, demonstrated in display of information in FIGS. 6-17).

Regarding dependent claim 5, see the analysis of claim 1 above. Grace, in combination

with Richardson teaches a method as in claim 1, wherein displaying a management information

view includes maintaining a database of managed objects associated with managed entity icons

(i.e. "the interconnections of such devices ... are stored" [0011] of Grace), the managed entity

icons corresponding to managed entities of a storage area network (i.e. "expandable symbols 804

representing network devices and details 806 of a user selected symbol 808" [0056] of Grace),

and upon detecting selection of at least one managed entity icon for producing a management

information view (i.e. "expandable symbols that can be navigated toexplore the structure of a

network" [0012] of Grace), retrievingat least one corresponding managed object stored in the

database associated with the selected at least one managed entity icon (i.e. "the interconnections

of such devices ... are stored" [0011] of Grace) to identify the

management information associated with the selection of the at least one managed entity icon

(i.e. "to determine what devices are present in the network and the interconnections of such

devices" [0011] of Grace, "determining ... the connection of a first set of devices to the first

device" [0013] of Grace).

Regarding dependent claim 6, see the analysis of claim 1 above. Grace, in combination

with Richardson teaches a method as in claim 1 further comprising allocating a first portion of a

display screen to include a hierarchy of selectable icons representing managed entities of a

storage area network (i.e. "expandable tree diagram 602 of expandable symbols 604 representing

network devices" [0046] of Grace), allocating a second portion of the display screen to include

the management information view associated with the at least one,managed entity in thenetwork

(i.e. "expandable symbols 804 representing network devices and details 806 of a user selected

symbol 808" [0056] of Grace), allocating a third portion of the display screen to display a

detailed view including separately listed entries of management information for each of the at

least one managed entity in the network displayed in the second portion of the display screen (i.e.

"a Detail Option 652 could be similarly selected to provide additional detail in the Summary

Window 606" [0049] of Grace, also note "My SAN Detail" in FIG. 8), and allocating a fourth

portion of the display screen to include the drill down menu (i.e. "user selectable list" 402 and

502 in FIGS. 4 and 5, see also [0043]-[0044] of Grace; col. 9 lines 22-26 of Richardson • "Once

the health Characteristics of the network objects of interest have been defined and their health

status determined, then the "drill down" process of proactively determining problem network

objects of the

managed network environment may commence").

Regarding dependent claim 7, see the analysis of claim 1 above. Grace, in combination with Richardson teaches a method as in claim 1 further comprising, in relation to the management information view (i.e. "generally provide a user with the ability to selectively display certain information" [0043] of Grace) including management information associated with the at least one managed entity in the network, displaying a detailed view of individually presented management information for each of the at least one managed entities (i.e. "selectively display certain information ... status variables or configurable settings of such devices or software" [0043] of Grace, demonstrated in display of information in FIGS. 6-17).

Regarding dependent claim 8, see the analysis of claim 7 above. Grace, in combination with Richardson teaches a method as in claim 7, wherein the management information in the management information view includes a single graph of collective management information associated with multiple managed entities of the network (i.e. "a summary display 606 is also included that provides information regarding the user selected symbol 608, which is in this example the symbol for the entire SAN", "option 662 has been selected, such that the Summary Window 606 displays general information regarding the items represented" [0048] of Grace, also note "My SAN Summary" in FIG. 7 and network summary graphics in FIGS. 2-3).

Regarding dependent claim 9, see the analysis of claim 7 above. Grace, in combination with Richardson teaches a method as in claim 7 further comprising providing corresponding

icons on the display screen to enable a user to selectively hide the management information view

(i.e. "expandable symbols that can be navigated to explore the structure of a network" [0012] of

Grace, "a user can select the type of information, the order of the items and the level of detail

that is desired" [0043] of Grace).

Regarding dependent claim 10 see the analysis of claim 1 above. Grace, in combination

with Richardson teaches a method as in claim 1, wherein the management information in the

management information view includes a single graph of collective management information

associated with the at least one managed entity (i.e. "a summary display 606 is also included that

provides information regarding the user selected symbol 608, which is in this example the

symbol for the entire SAN", "option 662 has been selected, such that the Summary Window 606

displays general information regarding the items represented" [0048] of Grace, also note "My

SAN Summary". in FIG. 7 and network summary graphics in FIGS. 2-3 of Grace).

Regarding dependent claim 11, see the analysis of claim 1 above. Grace, in combination

with Richardson teaches a method as in claim 1 further comprising displaying path information

in relation to the management information view, the path information including: i) an entry

corresponding to a present drill down level view of the displayed management information in the

management view (i.e. col. 6 lines 4-7 of Richardson : "If the user of the system is already

viewing the network objects of a particular group view or the health characteristics of a

particular network object, for instance, the drill-down would commence at that level"), and ii) at

least one entry of a previous drill down level view (i.e. col. 8 lines 17-20 of Richardson : "the

amount of drill- down that is required is a function of where in the hierarchy of maps and sub-

maps the administrator is located when initially alerted to the presence of a network object in

poor health") of previously displayed management information (reflected in "tree diagram" 602,

i.e. "the graphical user interface includes an expandable tree diagram of expandable symbols that

can be navigated to explore the structure of a network" [0012] of Grace, "additional layers of

information may also be provided on the tree diagram 602" [0047] of Grace, "managing large

numbers of parameters associated with devices in such networks" [0010] of Grace).

Regarding dependent claim 12, see the analysis of claim 11 above. Grace, in combination

with Richardson teaches a method as in claim 11, wherein the at least one entry of the previous

drill down level view may be selected by a user (i.e. col. 10 lines 3- 6 of Richardson : "At Block

190, the administrator or other user of the network will select the one or more network objects of

the group view having a health problem; this is the next step of the drill-down process") to

change contents of the management information view back to a corresponding previously

displayed management information view (i.e. "the Detail Option 852 of the Details display 806 is

selected such that various details ... are provided with respect to the selected symbol 808 in the

tree diagram 802" [0056] of Grace).

Regarding dependent claim 13, see the analysis of claim 1 above. Grace, in combination

with Richardson teaches a method as in claim 1 further comprising highlighting a subset of drill

down options in the drill down menu depending on which of the drill down options may be

selected by a user to produce a next displayable drill down view (i.e. col. 8 lines 1-9 of

Richardson • "The user-configurable group views

described above allow an administrator of the network, upon noticing that an icon of a user

interface Of the NNM console is indicative of a critical event having occurred, as reflected in the

color, shape, or other such indicator of the icon, to "drill down" to the network device or service

(object) that is the subject of the critical event and to then view an event or trap message

associated with the critical event that is stored as a field of the network device or service effected

by the critical event").

Regarding dependent claim 14, see the analysis of claim 1 above• Grace, in combination

with Richardson teaches a method as in claim 1 further comprising displaying a hierarchy of

managed entity icons that may be traversed based on use of a drill down technique (i.e. col. 8

lines 17-20 of Richardson • "the amount of drill-down that is required is a function of where in

the hierarchy of maps and sub-maps the administrator is located when initially alerted to the

presence of a network object in poor health"), and in relation to at least a portion of the managed

entity icons in the hierarchy (i.e. "the Detail Option 852 of the Details display 806 is selected

such that various details ... are provided with respect to the selected symbol 808 in the tree

diagram 802" [0056] of Grace), providing a display region in relation to the managed entity

icons to receive an input selection by a user of which management information to display for

multiple selected managed entities of the network (i.e. "expandable symbols 804 representing

network devices and details 806 of a user selected symbol 808"[0056] of Grace).

Regarding dependent claim 15, see the analysis of claim 1 above. Grace, in combination

with Richardson teaches a method as in claim 1, wherein the drill down menu includes at least

two sets of selectable drill down options (i.e. col. 7 lines 8-15 of Richardson : "These user-

configurable group views allow an administrator of the network, upon noticing that an icon is

indicative of a critical event having occurred, as reflected in the color, shape, or other such

indicator of the icon, to "drill down" to the network device or service that is the subject of the

critical event and to then view an event or trap message associated with the critical event that is

stored as a field of the network device or service effected by the critical event"), a first set of

selectable drill down options related to storage features of a storage area network, a second set of

drill down options related to host features of the storage area network (i.e. hosts 124, 126 and

152, "It is understood that this is a very simplified view of a SAN 100 with representative

storage devices and hosts coupled to the fabric 102. It is understood that quite often significantly

more devices and switches are used to develop the full SAN 100" [0034] of Grace, "a user can

select the type of information, the order of the items and the level of detail that is desired", "may

refer as examples, to any devices or software associated with a computer network" [0043] of

Grace).

Regarding dependent claim 16, see the analysis of claim 1 above. Grace, in combination

with Richardson teaches a method as in claim 1 further comprising in relation to the management

information view including management information associated with the at least one managed

entity in the network (i.e. "generally provide a user with the ability to selectively display certain

information" [0043] of Grace),

displaying a detailed view of individually presented management information for each of the at

least one managed entities, enabling a user to individually select each of the at least one managed

entity in the detailed view (i.e. "a Detail Option 652 could be similarly selected to provide

additional detail in the Summary Window 606" [0049] of Grace, also note "My SAN Detail" in

FIG. 8), and wherein producing a drill down view further includes applying the respective drill

down function to management information associated with individually selected managed

entities displayed in the detailed view (i.e. col. 5 lines 13-19 of Richardson :" Therefore,

according to the present invention, user-configurable group views allow an administrator of the

network, upon noticing that an icon is indicative of a critical event having occurred, as reflected

in the color, shape, or other such indicator of the icon, to "drill down" via a user interface to the

network device or service that is the subject of the critical event").

Regarding independent claim 17, Grace teaches a method of displaying management

information on a display screen (i.e. "the invention relates to graphical user interfaces for

managing electronic networks ... storage area networks (SANs), and the like" [0010] of Grace),

the method comprising, on a first portion of the display screen, displaying a vertical hierarchy of

selectable icons representing managed entities of a storage area network (i.e. "expandable tree

diagram 602 of expandable symbols 604 representing network devices" [0046] of Grace), on a

second portion of the display screen, displaying a summary view of collective management

information associated with at least two selected managed entities of the storage area network

(i.e. "a summary display 606 is also included that provides information regarding the user

selected symbol 608, which is in this example the symbol for the entire SAN", "option 662 has

been selected, such that the Summary Window 606 displays general information regarding the

items represented" [0048] of Grace, also note "My SAN Summary" in FIG. 7), on a third portion

of the display screen, displaying a detailed view of separately listed management information for

each of the at least two selected, managed entities in the network (i.e. "a Detail Option 652 could

be similarly selected to provide additional detail in the Summary Window 606" [0049] of Grace,

also note "My SAN Detail" in FIG. 8), and on a fourth portion of the display screen, displaying a

menu including multiple selectable options (i.e. "user selectable list" 402 and 502 in FIGS. 4 and

5, see also [0043] of Grace-[0044] of Grace) with respect to at least a portion of the management

information displayed in the detailed view of separately listed management information (i.e. "i

[sic] of Grace will be appreciated that the various options displays of the Summary display 606

can be configured by a user to display specific information desired (e.g., through the main menu

620, as illustrated by reference to FIGS. 2 and 3)" [0049] of Grace).

Grace does not teach a drill down view, drill down functions, associating selected drill

down options with entity management information, or displaying the drill down view on the

graphical user interface;

Continuing the display the drill down menu even after producing the drill down view for

selection of another drill down option from the drill down menu and further drilling down with

respect to the produced drill down view.

Richardson teaches a drill down view, drill down function, associating selected drill down options with entity management information, or displaying the drill down view on the graphical user interface (i.e. col. 5 lines 13-19 of Richardson : "Therefore, according to the present invention, user-configurable group views allow an administrator of the network, upon noticing that an icon is indicative of a critical event having occurred, as reflected in the color, shape, or other such indicator of the icon, to "drill down" via a user interface to the network device or service that is the subject of the critical event").

Continuing the display the drill down menu even after producing the drill down view for selection of another drill down option from the drill down menu and further drilling down with respect to the produced drill down view. (see figure 5, item 102)

It would have been obvious to an artisan at the time of the invention to combine the management information method of Grace with the drill down of Richardson "to quickly display to the administrator of a managed network health problems associated with devices and services on the network and to provide the administrator with the capability to quickly respond to and correct pending network problems" (col. 4 lines 62-66 of Richardson)

Regarding independent claim 21, Grace teaches a computer system supporting management information views associated with a storage area network (i.e. "the invention relates to graphical user interfaces for managing electronic networks ... storage area networks (SANs),

and the like" [0010] of Grace), the computer system comprising a processor, a memory unit that

stores instructions associated with an application executed by the processor, a communication

interface that'supports communication with other nodes of the storage area network, and an

interconnect coupling the processor (i.e. "computing, data storage, and communications

networks are just a few examples of networks for which new devices and methods of sharing

data are continually developed and improved" [0004] of Grace), the memory unit, and the

communication interface, enabling the computer system to execute the application and perform

operations of displaying a management information view (i.e. "generally provide a user with the

ability to selectively display certain information" [0043] of Grace) that includes management

information associated with at least one managed entity in a network (i.e. "may refer ... to any

devices or software associated with a computer network" [0043] of Grace, "other network

aspects could also be provided" [0044] of Grace), displaying a menu (i.e. "user selectable list"

402 and 502 in FIGS. 4 and 5, see also [0043] of Grace-[0044] of Grace) associated with the

management information view (i.e. "graphical user interface" 400 and 500 in FIGS. 4 and 5, see

also [0043] of Grace\- [0044] of Grace), the menu including selectable options (i.e. "display

items" selected from "available items" in FIGS. 4 and 5) that correspond to respective functions

selectively applied (i.e. "selectively display certain information ... status variables or

configurable settings of such devices or software" [0043] of Grace) to the management

information associated with the at least one managed entity (i.e. "may refer ... to any devices or

software associated with a computer network" [0043] of Grace, "other network aspects could

also be provided" [0044] of Grace), identifying a selected option chosen from the menu (i.e.

"display items" selected from "available items" in FIGS. 4 and 5), producing a view by applying

the respective function associated with the selected option to the management information

associated with the at least one managed entity, the produced view including a presentation of

the management information based on the applied respective function, and displaying the view

on the graphical user interface (i.e. "selectively display certain information ... status variables or

configurable settings of such devices or software" [0043] of Grace, demonstrated in display of

information in FIGS. 6-17).

Grace does not teach a drill down view, drill down functions, associating selected drill

down options with entity management information, or displaying the drill down view on the

graphical user interface,

Receiving selection of multiple entries in a hierarchy, the selection including multiple

managed entities in a network;

Continuing the display the drill down menu even after producing the drill down view for

selection of another drill down option from the drill down menu and further drilling down with

respect to the produced drill down view.

Richardson teaches a drill down view, drill down function, associating selected drill

down options with entity management information, or displaying the drill down view on the

graphical user interface (i.e. col. 5 lines 13-19 of Richardson : "Therefore, according to the

present invention, user-configurable group views allow an administrator of the network, upon

noticing that an icon is indicative of a critical event having occurred, as reflected in the color,

shape, or other such indicator of the icon, to "drill down" via a user interface to the network

device or service that is the subject of the critical event").

Receiving selection of multiple entries in a hierarchy, the selection including multiple

managed entities in a network; (see figure 4, items 82)

Continuing the display the drill down menu even after producing the drill down view for

selection of another drill down option from the drill down menu and further drilling down with

respect to the produced drill down view. (see figure 5, item 102)

It would have been obvious to an artisan at the time of the invention to combine the

management information computer system of Grace with the drill down of Richardson "to

quickly display to the administrator of a managed network health problems associated with

devices and services on the network and to provide the administrator with the capability to

quickly respond to and correct pending network problems" (col. 4 lines 62-66 of Richardson)

Claim 22 differs from claim 2 only in that claim 22 is a computer system claim where as,

claim 2 is a method claim. Thus, claim 22 is analyzed as previously discussed with respect to

claim 2 above.

Claim 31 differs from claim 11 only in that claim 31 is a computer system claim

whereas., claim 11 is a method claim. Thus, claim 31 is analyzed as previously discussed with

respect to claim 11 above.

Claim 32 differs from claim 12 only in that claim 32 is a computer system claim whereas, claim 12 is a method claim. Thus, claim 32 is analyzed as previously discussed with respect to claim 12 above.

Claim 33 differs from claim 13 only in that claim 33 is a computer system claim whereas, claim 13 is a method claim. Thus, claim 33 is analyzed as previously discussed with respect to claim 13 above.

Claim 34 differs from claim 14 only in that claim 34 is a computer system claim whereas, claim 14 is a method claim. Thus, claim 34 is analyzed as previously discussed with respect to claim 14 above.

Claim 35 differs from claim 15 only in that claim 35 is a computer system claim whereas, claim 15 is a method claim. Thus, claim 35 is analyzed as previously discussed with respect to claim 15 above.

Claim 36 differs from claim 16 only in that claim 36 is a computer system claim whereas, claim 16 is a method claim. Thus, claim 36 is analyzed as previously discussed with respect to claim 16above.

Regarding independent claim 37, Grace teaches a computer system for displaying

management information views associated with a storage area network (i.e. "the invention relates

to graphical user interfaces for managing electronic networks ... storage area networks (SANs),

and the like" [0010] of Grace), the computer system comprising'a processor, a memory unit that

stores instructions associated with an application executed by the processor, a communication

interface that supports communication with nodes of the storage area network and an

interconnect coupling the processor (i.e. "computing, data storage~ and communications

networks are just a few examples of networks for which new devices and methods of sharing

data are continually developed and improved" [0004] of Grace), the memory unit, and the

communication interface, enabling the computer system to execute the application and perform

operations of on a first portion of a display screen, displaying a vertical hierarchy of selectable

icons representing managed entities of a storage area network (i.e. "expandable tree diagram602

of expandable symbols 604 representing network devices" [0046] of Grace), on a second portion

of the display screen, displaying a summary view of collective management information

associated with at least two selected managed entities of the storage area network (i.e. "a

summary display 606 is also included that provides information regarding the user selected

symbol 608, which is in this example the symbol for the entire SAN", "option 662 has been

selected, such that the Summary Window 606 displays general information regarding the items

represented" [0048] of Grace, also note "My SAN Summary" in FIG. 7), on a third portion of the

display screen, displaying a detailed view of separately listed management information for each

of the at least two selected managed entities in the network (i.e. "a Detail Option 652 could be

similarly selected to provide additional detail in the Summary Window 606" [0049] of Grace,

also note "My SAN Detail" in FIG. 8), and on a fourth portion of the display screen, displaying a

menu including multiple selectable options (i.e. "user selectable list" 402 and 502 in FIGS. 4 and

5, see also [0043] of Grace-[0044] of Grace) with respect to at least a portion of the management

information displayed in the detailed view of separately listed management information (i.e. "i

[sic] of Grace will be appreciated that the various options displays of the Summary display 606

can be configured by a user to display specific information desired (e.g., through the main menu

620, as illustrated by reference to FIGS. 2 and 3)" [0049] of Grace).

Grace does not teach a drill down view, drill down functions, associating selected drill

down options with entity management information, or displaying the drill down view on the

graphical user interface.

Continuing the display the drill down menu even after producing the drill down view for

selection of another drill down option from the drill down menu and further drilling down with

respect to the produced drill down view.

Richardson teaches a drill down view, drill down function, associating selected drill

down options with entity management information, or displaying the drill down view on the

graphical user interface (i.e. col. 5 lines 13-19 of Richardson : "Therefore, according to the

present invention, user-configurable group views allow an administrator of the network, upon

noticing that an icon is indicative of a critical event having occurred, as reflected in the color,

shape, or other such indicator of the icon, to "drill down" via a user interface to the network

device or service that is the subject of the critical event").

Continuing the display the drill down menu even after producing the drill down view for

selection of another drill down option from the drill down menu and further drilling down with

respect to the produced drill down view. (see figure 5, item 102)

It would have been obvious to an artisan at the time of the invention to combine the

management information computer system of Grace with the drill down of Richardson "to

quickly display to the administrator of a managed network health problems associated with

devices and services on the network and to provide the administrator with the capability to

quickly respond to and correct pending network problems" (col. 4 lines 62-66 of Richardson)

Regarding independent claim 41, Grace teaches a computer program product including a

computer-readable medium having instructions stored thereon for processing data information

(i.e. "computing, data storage, and communications networks are just a few examples of

networks for which new devices and methods of sharing data are continually developed and

improved" [0004] of Grace), such that the instructions, when canied out by a processing device,

enable the processing device to perform operations of displaying a management information

view (i.e. "generally provide a user with the ability to selectively display certain information"

[0043] of Grace) that includes management information associated with at least one managed

entity in a network (i.e. "may refer ... to any devices or software associated with a computer

network" [0043] of Grace, "other network aspects could also be provided" [0044] of Grace)

displaying a menu (i.e. "user selectable list" 402 and 502 in FIGS. 4 and 5, see also [0043]-

[0044] of Grace) associated with the management infoi'mation view (i.e. "graphical user

interface" 400 and 500 in FIGS. 4 and 5, see also [0043]-[0044] of Grace), the menu including

selectable options (i.e. "display items" selected from "available items" in FIGS. 4 and 5) that

correspond to respective functions selectively applied (i.e. "selectively displaycertain

information ... status variables or configurable settings of such devices or software" [0043] of

Grace) to the management information associated with the at least one managed entity (i.e. "may

refer.., to any devices or software associated with a computer network" [0043] of Grace, "other

network aspects could also be provided" [0044] of Grace), identifying a selected option chosen

from the menu (i.e. "display items" selected from "available items" in FIGS. 4 and 5), producing

a view by applying the respective function associated .with the selected option to the

management information associated with the at least one managed entity, the produced view

including a presentation of the management information based on the applied respective function

and displaying the view on the graphical user interface (i.e. "selectively display certain

information ... status variables or configurable settings of such devices or software" [0043] of

Grace, demonstrated in display of information in FIGS. 6-17).

Grace does not teach a drill down view, drill down functions, associating selected drill

down options with entity management information, or displaying the drill down view on the

graphical user interface.

Continuing the display the drill down menu even after producing the drill down view for

selection of another drill down option from the drill down menu and further drilling down with

respect to the produced drill down view.

Richardson teaches a drill down view, drill down function, associating selected drill

down options with entity management information, or displaying ~the drill down view on the

graphical user interface (i.e. col. 5 lines 13-19 of Richardson : "Therefore, according to the

present invention, user-configurable group views allow an administrator of the network, upon

noticing that an icon is indicative of a critical event having occurred, as reflected in the color,

shape, or other such indicator of the icon, to "drill down" via a user interface to the network

device or service that is the subject of the critical event").

Continuing the display the drill down menu even after producing the drill down view for

selection of another drill down option from the drill down menu and further drilling down with

respect to the produced drill down view. (see figure 5, item 102)

It would have been obvious to an artisan at the time of the invention to combine the

management information computer program product of Grace with the drill down of Richardson

"to quickly display to.the administrator of a managed network health problems associated with

devices and services on the network and to provide the administrator with the capability to

quickly respond to and correct pending network problems" (col. 4 lines 62-66 of Richardson)

Regarding independent claim 42, Grace teaches a computer system for Supporting

management information views associated with a storage area network (i.e. "the invention relates

to graphical user interfaces for managing electronic networks ... storage area networks (SANs),

and the like" [()010] of Grace), the computer system including means for displaying a

management information view (i.e. "generally provide a user with the ability to selectively

display certain information" [0043] of Grace) that includes management information associated with at least one managed entity in a network (i.e. "may refer ... to any devices or software associated with a computer network" [0043] of Grace, "other network aspects could also be provided" [0044] of Grace), means for displaying a menu (i.e. "user selectable list" 402 and 502 in FIGS. 4 and 5, see also [0043]-[0044] of Grace) associated with the management information view (i.e. "graphical user interface" 400 and 500 in FIGS. 4 and 5, see also [0043]- [0044] of Grace), the menu including selectable options (i.e. "display items" selected from "available items;' in FIGS. 4 and 5) that correspond tO respective functions selectively applied (i.e. "selectively display certain information ... status variables or configurable settings of such devices or software" [0043] of Grace) to the management information associated with the at least one managed entity (i.e. "may refer ... to any devices or software associated with a computer network" [0043] of Grace, "other network aspects could also be provided" [0044] of Grace), means for identifying a selected option chosen from the menu (i.e. "display items" selected from "available items" in FIGS. 4 and 5), means for producing a view by applying the respective function associated with the selected option to the management information associated with the at least one managed entity, the produced view including a presentation of the management information based on the applied respective function and means for displaying the produced view (i.e. "selectively display certain information ... status variables or configurable settings of such devices or software" [0043] of Grace, demonstrated in display of information in FIGS. 6-17). Grace does not teach a drill down view, drill down functions, associating selected drill down options with entity management information, or displaying the drill down view on the graphical user interface.

Continuing the display the drill down menu even after producing the drill down view for

selection of another drill down option from the drill down menu and further drilling down with

respect to the produced drill down view.

Richardson teaches a drill down view, drill down function, associating selected drill

down options with entity management information, or displaying the drill down view on the

graphical user interface (i.e. col. 5 lines 13-19 of Richardson : "Therefore, according to the

present invention, user-configurable group views allow an administrator of the network, upon

noticing that an icon is indicative of a critical event having occurred, as reflected in the color,

shape, or other such indicator of the icon, to "drill down" via a user interface to the network

device or service that is the subject of the critical event").

Continuing the display the drill down menu even after producing the drill down view for

selection of another drill down option from the drill down menu and further drilling down with

respect to the produced drill down view. (see figure 5, item 102)

It would have been obvious to an artisan at the time of the invention to combine the

management information GUI of Grace with the drill down of Richardson "to quickly display to

the administrator of a managed network health problems associated with devices and services on

the network and to provide the administrator with the capability to quickly respond to and correct

pending network problems" (col. 4 lines 62-66 of Richardson).

Regarding dependent claim 44, see the analysis of claim 17 above. Grace, in combination with Richardson teaches as method as in claim 17, on a fourth portion of the display screen, displaying path information including entries indicating a sequence of drill down option selected by a viewer, each of the entries being selectable by the viewer to revert back to a previous drill down level. (see Grace, figure 10, items 1008, 1002, 1004)

Claims 18-20, 38-40, 43 and 45-50 are rejected under 35 U:S.C. 103(a) as being unpatentable over Grace et al. ("Grace" US Patent Application Publication No. 2004/0075680) in view of Richardson ("Richardson" US Patent No. 6,271,845) further in view of Wong US Patent 6,822,663

Regarding dependent claim 18, see the analysis of claim 17 above. Grace, in combination with Richardson teaches a method as in claim 17, highlighting a first selectable drill down option and a second selectable drill down option in the drill down menu to indicate that from the first selectable drill down option and the second selectable drill down option can be selected by a viewer and applied to the management information in the second portion of the display screen (see Richardson, figure 5, item 102)

in response to receiving selection of the first selectable drilldown option from the drill down menu:

i) Updating the separately listed management information for each of the at least two management entities selected from the hierarchy by providing a drill down view in accordance with the selection of the first selectable drill download; (paragraph 0057of Grace)

However, they fails to teach discontinuing highlighting of the first selectable drilldown

option from the drill down menu to indicate that the first selectable drill down option can no

longer be selected to drill down with respect a current drill down level view of the management

information in the second portion of the display screen.

Wang teaches discontinuing highlighting if option can no longer be selected.(see col. 9,

lines 1-50)

It would have been obvious to an artisan at the time of the invention to include Wang's

teaching with method of Grace in order indicate which option is selectable.

Regarding dependent claim 19, see the analysis of claim 18 above. Grace, in combination

with Richardson and Wang teaches a method as in claim 17, wherein the drill down menu

includes at least two sets of selectable drill down options (i.e. "user selectable list" 402 and 502

in FIGS. 4 and 5, see also [0043] of Grace-[0044] of Grace), a first set of selectable drill down

options related to storage features of a storage area network (i.e. col. 8 lines 1-9 of Richardson :

"The user-configurable group views described above allow an administrator of the network, upon

noticing that an icon of a user interface of the NNM console is indicative of a critical event

having occurred, as reflected in the color, shape, or other such indicator of the icon, to "drill

down" to the network device or service (object) that is the subject of the critical event and to then

view an event or trap message associated with the critical event that is stored as a field of the

network device or service effected by the critical event"), a second set of drill down options

related to host features of the storage area network (i.e. hosts 124, 126 and 152, "It is understood

that this is a very sin4plified view of a SAN 100 with representative storage devices and hosts

coupled to the fabric 102. It is understood that quite often significantly more devices and

switches are used to develop the full SAN 100" [0034] of Grace, "a user can select the type of

information, the order of the items and the level of detail that is desired", "may refer as

examples, to any devices or software associated with a

computer network" [0043] of Grace).

Regarding dependent claim 20, see the analysis of claim 18 above. Grace, in combination

with Richardson and Wang teaches a method as in claim 17 further comprising on a fourth

portion of the display screen, displaying path information path information including: i) an entry

corresponding to a drill down view of presently displayed management information (i.e. col. 9

lines 22-26 of Richardson : "Once the health characteristics of the network objects of interest

have been defined and their health status determined, then the "drill down" process of proactively

determining problem network objects of the managed network environment may commence"),

and ii) at least one entry corresponding to a previously displayed drill down view (i.e. Col. 8

lines 17-20 of Richardson : "the amount of drill-down that is required is a function of where in

the hierarchy of maps and sub-maps the administrator is located when initially alerted to the

presence of a network object in poor health") of management information (reflected in "tree

diagram" 602, i.e. "the graphical user interface includes an expandable tree diagram of

expandable symbols that can be navigated to explore the structure of a network" [0012] of Grace,

"additional layers of information may also be provided on the tree diagram 602" [0047] of Grace,

"managing large numbers of parameters associated with devices in such networks" [0010] of

Grace).

Claim 38 differs from claim 18 only in that claim 38 is a computer system claim whereas, claim 18 is a method claim. Thus, claim 38 is analyzed as previously discussed with respect to claim 18 above.

Claim 39 differs from claim 19 only in that claim 39 is a computer system claim whereas, claim 19 is a method claim. Thus, claim 39 is analyzed as previously discussed with respect to claim 19 above.

Claim 40 differs from claim 20 only in that claim 40 is a computer system claim whereas, claim 20 is a method claim. Thus, claim 40 is analyzed as previously discussed with respect to claim 20 above.

Regarding dependent claim 43, see the analysis of claim 20 above. Grace, in combination with Richardson and Wang teaches as method as in claim 20 displaying the entry corresponding to the drill down view of presently display management information to include a label corresponding to a selectable drill down option selectable drill down option selected by viewer to view the current drill down level; (see Richardson, figure 5, item 102) and

Displaying the path information to includes entries corresponding to previous viewed drill down levels of the management information. (see Richardson, figure 5, item 102)

Regarding dependent claim 45, see the analysis of claim 1 above. Grace, in combination with Richardson teaches method as in claim 1 further highlighting a first group of the selectable

drill down option to indicate that at least a first selectable drill down option and a second

selectable drill down option in the first group can be selected to drill down with respect to the

management information associated with the multiple managed entities; (see Richardson, figure

5, item 102)

They fail to teach de-highlighting a second group of the selectable drill down option to

indicate that at least a third selectable drill down option and a fourth selectable drill option in the

second group cannot be selected to drill down with respect to the management information

associated with the multiple managed entities.

Wang teaches discontinuing highlighting if option can no longer be selected.(see col. 9,

lines 1-50)

It would have been obvious to an artisan at the time of the invention to include Wang's

teaching with method of Grace in order indicate which option is selectable.

Regarding dependent claim 46, see the analysis of claim 45 above. Grace, in

combination with Richardson and Wong teaches identifying the selected drill down option

includes receiving selection of the first selectable drill down option in the first group, ; (i.e. "user

selectable list" 402 and 502 in FIGS. 4 and 5, see also [0043] of Grace-[0044] of Grace),

The method further comprising:

In response to receiving the selection of the first selectable drill down option, i) intiating

display of the management information in accordance with frist selectable drill down option; (i.e.

"user selectable list" 402 and 502 in FIGS. 4 and 5, see also [0043] of Grace-[0044] of Grace),

de-highlighting the first selectable drill down option to indicate that the first selectable

drill down option cannot be selected. .(see Wong col. 9, lines 1-50)

Regarding dependent claim 47, see the analysis of claim 46 above, Grace, in combination with Richardson and Wong teaches displaying path information including a first entry corresponding to the selection of the first selectable drill down option in the drill down menu. (see Richardson, figure 5, item 102)

Regarding dependent claim 48, see the analysis of claim 47 above, Grace, in combination with Richardson and Wong teaches teaches receiving selection of the second selectable drill down option in the first group, ; (i.e. "user selectable list" 402 and 502 in FIGS. 4 and 5, see also [0043] of Grace-[0044] of Grace),

The method further comprising:

In response to receiving the selection of the first selectable drill down option, i) intiating display of the management information in accordance with frist selectable drill down option; (i.e. "user selectable list" 402 and 502 in FIGS. 4 and 5, see also [0043] of Grace-[0044] of Grace),

de-highlighting the first selectable drill down option to indicate that the first selectable drill down option cannot be selected..(see Wong col. 9, lines 1-50)

Regarding dependent claim 49, see the analysis of claim 48 above, Grace, in combination with Richardson and Wong teaches displaying the path information to include a second entry, which follows the first entry in the path information, the second entry corresponding to the selection of the second selectable drill down option in the drill down menu. (i.e. "user selectable list" 402 and 502 in FIGS. 4 and 5, see also [0043] of Grace-[0044] of Grace),

Regarding dependent claim 50, see the analysis of claim 49 above, Grace, in combination

with Richardson and Wang teaches enabling selection of the first entry in the path information;

In response to receiving selection of the first entry in the path information, displaying the

management information in accordance with the first selectable drill down option. (i.e. "user

selectable list" 402 and 502 in FIGS. 4 and 5, see also [0043] of Grace-[0044] of Grace),

Response to Arguments

Applicant's arguments with respect to claims 1-22 and 31-50 have been considered but

are deemed to be moot in view of the new grounds of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Peng Ke whose telephone number is (571)272-4062. The

examiner can normally be reached on M-Th and Alternate Fridays 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Peng Ke
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Primary Examiner, Art Unit 2174